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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GEORGE F. THAGARD, III and NICOLAE ACHIM

Appeal 2010-003726
Application 10/772,049
Technology Center 1700

Before CHUNG K. PAK, PETER F. KRATZ, and CATHERINE Q. TIMM, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1 through 30, all of the claims pending in the above-

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

identified application.[2] An oral hearing was held on February 9, 2011. We have jurisdiction under 35 U.S.C. § 6.

STATEMENT OF THE CASE

The subject matter on appeal is directed to a method of producing "asphaltic foams which are useful in roofing and in other applications" (Spec. 1, para. 0001 and claim 1). Details of the appealed subject matter are recited in representative claim 1 reproduced from the Claims Appendix to the Appeal Brief as shown below:

> 1. A method for producing asphaltic foam comprising the steps of:
>
> providing an asphalt;
>
> liquefying said asphalt;
>
> adding to said asphalt one or more isocyanates, thereby forming a first intermediate mixture;
>
> bringing the temperature of said first intermediate mixture to between about 120°F and 170°F;
>
> forming a second intermediate mixture comprising one or more polyols, a blowing agent, and a surfactant, wherein the second intermediate mixture is segregated from the first intermediate mixture;
>
> forcing said first intermediate mixture through a first impingement dispensing head;

[2] *See generally* the Appeal Brief filed August 20, 2007 ("App. Br."), the Examiner's Answer dated November 13, 2007("Ans."), and the Reply Brief filed January 14, 2008 ("Reply Br.").

> forcing said second intermediate mixture through a second impingement dispensing head; and
>
> mixing said first intermediate mixture forced through said first impingement dispensing head with said second intermediate mixture forced through said second impingement dispensing head, thereby forming a final reaction mixture, wherein said first intermediate mixture and said second intermediate mixture react and expand in a controllable manner such that the final reaction mixture does not expand beyond a form desired in a final molded asphaltic foam or cure before taking on said form to produce said asphaltic foam.

As evidence of unpatentability of the claimed subject matter, the Examiner relies on the following references at page 3 of the Answer:

Roy	US 4,225,678	Sep. 30, 1980
Tzeng	US 5,965,626	Oct. 12, 1999

Appellants seek review of the Examiner's decision rejecting claims 1 through 30 under 35 U.S.C. § 103(a) as unpatentable over Roy alone, or in view of Tzeng.

RELEVENT FACTS, PRINCIPLES OF LAW, ISSUE, ANALYSIS, AND CONCLUSIONS

The Examiner relies on Roy for teaching a process for producing asphaltic foams "by preparing molten asphalt and combining it with urethane forming reactants, [a] blowing agent, surfactants, catalysts, and other materials" (Ans. 3). The Examiner asserts that "Roy differs from appellants' claims in that the order of mixing the asphalt component is not so specified as to require addition to the isocyanate component first" (*id*). Nevertheless, the Examiner concludes (Ans. 3-4) that:

> [I]t would have been obvious for one having ordinary skill in the art to have added the asphaltic component of Roy to any of the components disclosed first during the processing operation for the purpose of providing the asphaltic component within the polymeric foam forming materials with the expectation of success in order to arrive at the processes of appellants' claims in the absence of a showing of new or unexpected results.

The Examiner also appears to contend that the use of more than one dispensing head in the process of Roy would have been obvious to one of ordinary skill in the art since "it has been held by the court that the mere duplication of parts has not patentable significance unless a new or unexpected result is produced" (Ans. 6).

The Examiner further relies on Tzeng for the additional limitations recited in claims 11 through 24 (Ans. 4).

On the other hand, Appellants contend, *inter alia*, that the Examiner has not demonstrated that Roy would have suggested steps for forming the claimed first and second intermediate mixtures and ejecting the claimed first and second intermediate mixtures separately from at least two separate impingement dispensing heads to impinge and mix the claimed first and second intermediate mixtures to form a polyurethane foam (App. Br. 4-7).

Thus, the dispositive question is: Has the Examiner demonstrated that one of ordinary skill in the art would have been led to employ steps for forming the claimed first and second intermediate mixtures and ejecting the claimed first and second intermediate mixtures separately from at least two separate impingement dispensing heads to impinge and mix the claimed first and second intermediate mixtures to form a polyurethane foam in Roy's

asphaltic polyurethane foam making process within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the negative.

As is apparent from column 3, lines 1-4, of Roy referred to by the Examiner, Roy teaches that:

> The process further comprises the step of combining the intermediate component reactant of the preceding paragraph [i.e., a mixture of asphalt (bitumen) and a hydroxy fatty oil,] with a polyhydroxy compound, a polyisocyanate, and a gas-generating agent to form a polymeric foam.

Roy subsequently clarifies its process as involving mixing a mixture of asphalt and the fatty oil with a polyhydroxy compound (polyol), a catalyst, a surfactant, and a plasticizer and then combining such mixture with a polyisocyanate, blowing agent and water *in* a conventional mixing head. (*See* Roy, col. 7, ll. 1-24).

Roy does not teach forming the claimed first and second intermediate mixtures and then ejecting the first and second intermediate mixtures separately from their respective separate impingement dispensing heads to impinge and mix the first and second intermediate mixtures to form a polyurethane foam. (*Id.*) Although the Examiner asserts that the addition of the asphalt to the polyisocyanate *first* and the use of more than one mixing head in Roy's asphaltic polyurethane foam making process would have been obvious to one of ordinary skill in the art as indicated *supra*, such proposed modification would not have resulted in the invention recited in claim 1. *See Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1052 (Fed. Cir.), *cert. denied*, 489 U.S. 825 (1988) (The combined teachings of the prior art references "would, in any event, fall short of the invention" defined by the claims.). The asphaltic polyurethane foam making process of Roy modified

in the manner proposed by the Examiner would require mixing a mixture of the asphalt and the fatty oil with a polyisocyanate, a blowing agent and water and then combining them with a polyhydroxy compound (polyol), a catalyst, a surfactant, and a plasticizer *in each* mixing head. In other words, the asphaltic polyurethane foam making process of Roy modified in the manner proposed by the Examiner still would not have resulted in the employment of the step of ejecting the first and second specific intermediate mixtures *separately* from their respective separate impingement dispensing heads to mix the first and second intermediate mixtures to form a polyurethane foam as required by claim 1.

Accordingly, on this record, we reverse the Examiner's decision rejecting claims 1 through 30 under 35 U.S.C. § 103(a) as unpatentable over Roy alone, or in view of Tzeng.

ORDER

Upon consideration of the record, and for the reasons given, it is

ORDERED that the decision of the Examiner to reject claims 1 through 30 under 35 U.S.C. § 103(a) as unpatentable over Roy alone, or in view of Tzeng is REVERSED.

REVERSED

kmm

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